

Amendments to the Specification:

Please replace paragraph [0003] with the following amended paragraph:

The growth of a silicon dioxide layer is very important for achieving high quality of the integrated circuits. Generally, two processes are widely used to form silicon dioxide layers. One process is employed to form native oxide layers, and the other process is used to form thermal oxide layers.

Please replace paragraph [0008] with the following amended paragraph:

Fig. 2 (including Figs. 2A and 2B) is a flowchart illustrating a process for forming an oxide layer on a wafer according to prior art. Such process comprises two main procedures, i.e., a preliminary procedure and a normal oxidizing procedure. The preliminary procedure is performed for ascertaining whether there is a leakage of the overall oxidizing system. The preliminary procedure is described as follows and is shown with reference to Figs. 1 and 2A. First, a plurality of test wafers are placed into the quartz furnace tube 11 which serves as an oxidizing chamber (Step S11). Then, the valves V2 and V3 are closed, and the valve V1 is kept open (Step S12). In Step S13, nitrogen is introduced into the oxidizing system at a specified flow rate so as to purge the overall oxidizing system for about 5 minutes. Then, the quartz furnace tube 11 is heated to an operating temperature for forming oxide layers on the test wafers, e.g., 800 to 1000 °C, and maintained at such temperature for about 10 to 20 minutes (Step S14). Then, the temperature of the quartz furnace tube 11 is decreased to about room temperature for about 1 to 1.5 hours (Step S15). Then, as shown in Step S16, the test wafers are removed from the quartz furnace tube 11, and an average thickness d of the oxide layers on the test wafers is measured. If the average thickness d is greater than an acceptable thickness, e.g., 20 Å, it indicates that some leakages might be generated in the piping system or associated connectors. Meanwhile, the actual locations of leakages need to be detected. In addition, some remedial measures should be taken to prevent leakage, such as re-tightening the connectors and/or welding the pipes. To assure that there is no additional leakage in the oxidizing system, the steps S11 to S16 should be repeated.

Please replace paragraph [0009] with the following amended paragraph:

Alternatively, if the average thickness d is less than the acceptable thickness, it means that no leakage occurs in the oxidizing system. At that time, the normal oxidizing procedure will be performed, as described below with reference to [[Figs.]] Fig. 2B.

Please replace paragraph [0011] with the following amended paragraph:

The above-mentioned preliminary procedure has some drawbacks. For example, the preliminary procedure is time-consuming for detecting leakage of the overall oxidizing system, because the average oxide layer thickness of the test wafers is obtained after the quartz furnace tube 11 has been cooled down. In addition, if some leakages are likely to be generated, it is necessary to re-tighten the connectors and/or weld the pipes and carry out the above preliminary procedure again until no leakage is detected. That is to say, when some leakages occur, the preliminary procedure will be carried out at least two times. Since every preliminary procedure takes about 1.5-2 hours, it takes a relatively long time period, e.g., approximately 0.5 to 1.0 day, and wastes a substantial number of test wafers for testing the leaking condition. Therefore, there is a need to develop an improved process for detecting a leaking condition of the oxidizing system so as to overcome the above-mentioned problems.